

Title (en)

Electric generation control system for hybrid vehicle

Title (de)

Regelsystem für die Stromerzeugung eines Hybridfahrzeuges

Title (fr)

Système de réglage d'un générateur de courant pour un véhicule hybride

Publication

EP 0698522 B1 20000308 (EN)

Application

EP 95305868 A 19950822

Priority

JP 19707294 A 19940822

Abstract (en)

[origin: EP0698522A1] When the remaining capacity of a battery (3) on a hybrid vehicle is smaller than a threshold value or the battery (3) is unable to output the amount of electric energy required to propel the hybrid vehicle with a propulsive electric motor (4), an engine (16) is started by a generator (17) which operates in a motor mode. The engine (16) rotational speed is brought to a predetermined value by the generator (17), at which time fuel is supplied to the engine (16). After the engine (16) has achieved full combustion and has been warmed up, the generator (17) operates in a generator mode to generate electric energy which is supplied to the battery (3) and the propulsive electric motor (4). The threshold value for the remaining capacity of the battery (3) is greater as the atmospheric pressure (ATp) is lower. Therefore, if the vehicle is running under low atmospheric pressure such as on high ground, the electric energy is supplied from the generator (17) to the battery (3) and the propulsive electric motor (4) at an early stage where the capacity of the battery (3) is relatively high. The generator (17) also starts to generate electric energy when the battery is unable to output an amount of electric energy sufficient enough to propel the vehicle. <MATH>

IPC 1-7

B60L 11/12; **B60K 6/04**; **F01N 3/00**; **H02J 7/14**

IPC 8 full level

B60K 6/04 (2006.01); **B60K 6/20** (2007.10); **B60K 6/46** (2007.10); **B60L 11/08** (2006.01); **B60L 11/12** (2006.01); **B60L 50/13** (2019.01); **B60L 50/15** (2019.01); **B60W 10/06** (2006.01); **B60W 10/08** (2006.01); **B60W 10/26** (2006.01); **B60W 10/30** (2006.01); **B60W 20/00** (2006.01); **F01N 3/20** (2006.01); **F01N 3/24** (2006.01); **F02D 29/02** (2006.01); **F02D 29/06** (2006.01); **F02D 41/06** (2006.01); **F02D 41/14** (2006.01); **F02D 45/00** (2006.01); **F02N 11/04** (2006.01); **F02N 11/08** (2006.01); **H02J 7/00** (2006.01); **H02J 7/14** (2006.01); **H02P 9/04** (2006.01)

CPC (source: EP US)

B60K 6/46 (2013.01 - EP US); **B60L 50/61** (2019.01 - EP US); **B60L 58/12** (2019.01 - EP US); **B60L 58/22** (2019.01 - EP US); **B60W 10/06** (2013.01 - EP US); **B60W 10/08** (2013.01 - EP US); **B60W 10/26** (2013.01 - EP US); **B60W 10/30** (2013.01 - EP US); **B60W 20/00** (2013.01 - EP); **B60W 20/13** (2016.01 - US); **B60W 20/15** (2016.01 - US); **H02J 7/1415** (2013.01 - EP US); **B60K 2006/268** (2013.01 - EP); **B60L 2240/445** (2013.01 - EP US); **B60L 2270/12** (2013.01 - EP US); **B60W 2510/0676** (2013.01 - EP US); **Y02T 10/40** (2013.01 - EP US); **Y02T 10/62** (2013.01 - EP US); **Y02T 10/70** (2013.01 - EP US); **Y02T 10/7072** (2013.01 - US); **Y10S 903/903** (2013.01 - EP US)

Cited by

DE102004025460A1; CN111868359A; FR2790428A1; EP0903492A3; EP1020640A3; CN114412651A; GB2434928B; GB2406319A; GB2406319B; DE102007002188A1; DE102007002188B4; EP0883225A1; FR2941054A1; EP2306614A1; FR2783763A1; CN102076540A; DE10049510B4; US7513325B2; US6705416B1; US6742487B2; US7216729B2; US8509977B2; US7781902B2; WO0063041A1; WO2010010039A1; WO20066974A3; WO0153128A3; US8521355B2; US8666584B2; US6912889B2; US6983640B1; US7866424B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0698522 A1 19960228; **EP 0698522 B1 20000308**; DE 69515395 D1 20000413; DE 69515395 T2 20001207; JP 2587202 B2 19970305; JP H0861193 A 19960305; US 5614809 A 19970325

DOCDB simple family (application)

EP 95305868 A 19950822; DE 69515395 T 19950822; JP 19707294 A 19940822; US 51314095 A 19950809